CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/WNo.08/KRIDL/CUBE/2014-15

05.07.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager,** KRIDL, Bangalore.
Name of the work	: Improvements to roads and drains at T. Ramaiah Layout in Ward No. 8, BBMP, Bangalore.
Reference	: AEE/KH/437/2014-15 Dated: 03.06.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	07.06.2014	05.07.2014	8.089	476.5	21.18
2	07.06.2014	05.07.2014	8.135	489.5	21.76
3	07.06.2014	05.07.2014	8.248	498.2	22.14

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 15 days from the date of testing.

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/WNo.08/KRIDL/SDBC/Bitumen/2014-15 18.07.2014

BITUMEN CONTENT AND GRADATION DETERMINATION OF SEMI DENSE BITUMINOUS CONCRETE MIX

As per IS : 2386 and IRC : SP : 11 - 1984

CLIENT	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	**Technical Manager,** KRIDL, Bangalore.
NAME OF THE WORK	Improvements to roads and drains at T. Ramaiah Layout in Ward No. 8, BBMP, Bangalore.
REFERENCE	AEE/KH/437/2014-15 Dated: 03.06.2014
SAMPLE I/D	Roads at T. Ramaiah Layout in Ward No. 8
DATE OF TESTING	18.07.2014

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	474	473.5
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	26	26.50
7. Bitumen content in %	5.20	5.30
8. Average	**5.25**	

GRADATION AFTER EXTRACTION

SIEVE SIZE	Trail 1				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
13.2	0	0	0	100	100
9.5	25.14	5.30	5.30	94.70	90-100
4.75	246.89	52.09	57.39	42.61	35-51
2.36	53.26	11.24	68.63	31.37	24-39
1.18	51.45	10.85	79.48	20.52	15-30
0.3	36.37	7.67	87.15	12.85	9-19
0.075	38.49	8.12	95.27	4.73	3-8

SIEVE SIZE	Trail 2				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
13.2	0	0	0	100	100
9.5	26.35	5.27	5.27	94.73	90-100
4.75	243.85	48.77	54.04	45.96	35-51
2.36	87.65	17.53	71.57	28.43	24-39
1.18	46.83	9.37	80.94	19.06	15-30
0.3	25.15	5.03	85.97	14.03	9-19
0.075	43.57	8.71	94.68	5.32	3-8

Note:

- This test report should not be reproduced except in full, without written approval of the laboratory
- The results indicated above are based on the tests carried out on the samples received in the laboratory
- Any Query regarding the report must be reported within 15 days from the date of testing

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthi Ganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/WNo.08/KRIDL/WMM/Gradation/2014-15

19.06.2014

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to roads and drains at T. Ramaiah Layout in Ward No. 8, BBMP, Bangalore.

Reference : AEE/KH/437/2014-15 Dated: 03.06.2014

Date of Testing : 19.06.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **25905**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	948	948	3.7	96.3	95-100
22.4	6745	7693	29.7	70.3	60-80
11.2	5259	12952	50.0	50.0	40-60
4.75	4667	17619	68.0	32.0	25-40
2.36	3558	21177	81.7	18.3	15-30
0.600	2179	23356	90.2	9.8	8-22
0.075	2194	25550	98.6	1.4	0-8

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 15 days from the date of testing.

Civil Tech Consultants & Engineers Bangalore

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.